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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/664,913

09/22/2003

Takashi Ushijima

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05/27/2004

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EXAMINER

EVERHART, CARIDAD

ART UNIT

PAPER NUMBER

2825

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/664,913

Applicant(s)

USHIJIMA ET AL.

Examiner

Caridad M. Everhart

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 42-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-45 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/969,780.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 42-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kummer, et al. ("Kummer")(US 6,663,784B1) or of Hartmann, et al. ("Hartmann")(US 2002/0027300A1).

Kummer discloses aspherical microlenses which are shaped by surface tension(col. 1, lines 46-50 and 58-65, and col. 3, lines 44-50 and 57-65). In col. 3, lines 44-50 Kummer discloses that the aspherical microlenses are important in the prior art.

Kummer is silent with respect to the profile being identical to a surface profile of a liquid deposited over a semispherical structure on a substrate. It would have been obvious to one of ordinary skill in the art at the time of the invention that the structure taught by

Kummer can be made to have a surface profile identical to any desired surface profile because Kummer teaches that the profile can be chosen 4, lines 15-24). Although the method taught by Kummer does not rely only on surface tension, because the claims are device claims, the method limitations do not determine the patentability of the claims(MPEP 2173.05(p).

Hartmann discloses microlens having aspherical surfaces formed by surface tension in which the characteristics of the microlenses can be controlled by such properties of the material coating a substrate as the surface tension. An array of the microlenses is also disclosed (paragraphs 0005, 0084, 0089, 0164, 0182,). Although Hartmann is silent with respect t the profile being identiacal to a surface profile of a liquid deposited over a semispherical structure, it would have been obvious to one of ordinary skill in the art at the time of the invention that Hartmann encompasses this limitation because Hartmann teaches that a controlled shape results from the control of the properties such as the surface tension of the coating.

Claim 44 ia rejected under 35 U.S.C. 103(a) as being unpatentable over Hartmann as applied to claim 42 above.

Hartmann teaches an array of aspherical lenses as relied upon above. Claim 44 is obvious in view of Hartmann for the same reasons given above in the rejection of claim 42.

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartmann et al or of Kummer et al as applied to claim42 above, and further in view of Hamada, et al. ("Hamada")(US 5,056,912).

Hartmann is silent with respect to a fly-eye array.

Hamada discloses a fly eye array of microlenses(col. 3, lines 48-51; col. 5, lines 65-68; col. 6, lines 7-12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the disclosure made by Hartmann with the disclosure made by Hamada because the shapes of the lenses can be controlled as taught by Hartmann, and the properties desired for forming the fly eye lens can be obtained by the method of forming a microlens array taught by Hartmann, so that the combination of Hartmann with Hamada would result in such an array.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 571-272-1892. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew S. Smith can be reached on 571-272-1907. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 2825

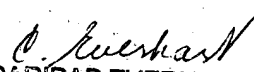
Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

C. Everhart  
5-24-2004

  
CARIDAD EVERHART  
PRIMARY EXAMINER